

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
 United States Patent and Trademark
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 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

| | |
|--|--|
| Date of mailing (day/month/year) 25 October 2000 (25.10.00) | |
| International application No. PCT/FI00/00074 | Applicant's or agent's file reference 8M20PC |
| International filing date (day/month/year) 02 February 2000 (02.02.00) | Priority date (day/month/year) 02 February 1999 (02.02.99) |
| Applicant LAIHO, Keijo | |

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
30 August 2000 (30.08.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
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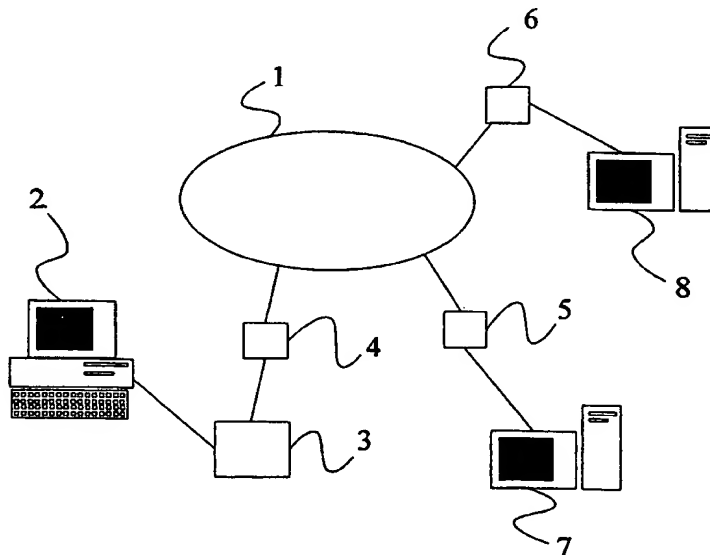
Charlotte ENGER

Telephone No.: (41-22) 338.83.38



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

| | | |
|---|-----------|--|
| (51) International Patent Classification ⁷ : G06F 17/30 | A2 | (11) International Publication Number: WO 00/46696 (43) International Publication Date: 10 August 2000 (10.08.00) |
| (21) International Application Number: PCT/FI00/00074 (22) International Filing Date: 2 February 2000 (02.02.00) (30) Priority Data: 990192 ✓ 2 February 1999 (02.02.99) FI (71) Applicant (for all designated States except US): TELEFON- AKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-126 25 Stockholm (SE). (72) Inventor; and (75) Inventor/Applicant (for US only): LAIHO, Keijo [FI/FI]; Metsätorantie 2 G 20, FIN-02430 Masala (FI). (74) Agent: BORENIUS & CO OY AB; Kansakoulukuja 3, FIN-00100 Helsinki (FI). | | (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i> |

(54) Title: ADDRESSING IN THE INTERNET**(57) Abstract**

A method of facilitating the correction of an incorrect hyperlink contained in a source web page stored on a first web server (7) at an address identified by a first Universal Resource Locator (URL) and which hyperlink points to a second URL at a second web server (8). The method comprises copying the source page from the first web server (7) to a browser of a client computer (2) via the Internet, and selecting the incorrect hyperlink at the browser so as to transmit a URL resource retrieval request from the browser to the second web server (8). The request is received at the second web server (8) which responds by returning to the browser a corrected URL. The corrected URL and said first URL are transmitted from the browser to said first web server (7).

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Addressing in the Internet

Field of the Invention

- 5 The present invention relates to addressing in the Internet and more particularly to hyperlinks such as are used in the World Wide Web.

Background to the Invention

- 10 Growth in the use of the Internet, and in particular that part of the Internet known as the World Wide Web (WWW), has been extremely rapid in recent years. Much of the success of the WWW is due to the simple and
- 15 efficient way in which an enormous number of separate documents (or files) may be linked together, allowing a user to browse through related documents merely at the click of a mouse button.
- 20 WWW documents (or pages) are written in a language known as Hyper Text Mark-up Language (HTML) which lies somewhere between conventional computer programming languages and plain English text. A link to a page on a
- 25 WWW server may be included in some other WWW page by including the Universal Resource Locator (URL) of the "referenced" page in the HTML file corresponding to the "referring" page. For example, if one wished to include a link to the WWW page of the European Patent Office in some other WWW page, then the following line could be
- 30 added to the corresponding HTML file:
- ```

European Patent Office
```
- This would result in the WWW page displaying "European Patent Office" as a clickable link.

A common source of annoyance for users of the WWW is the return of a message, after a link has been clicked, indicating that the WWW page at the requested URL cannot be located. This situation often results from WWW pages being deleted from a WWW server or alternatively being relocated to a new URL.

Redirection tools are available for redirecting an original request to an out of date URL, to a new URL. Typically, this involves running an application at a WWW server where the requested page is located, and which intercepts requests to the URL and replaces them with a request to the new URL. Whilst this results in the correct page being delivered to the Web browser from which the request originated, it does not address the fundamental problem, i.e. the incorrect URL incorporated into the clicked hyperlink.

#### Summary of the Present Invention

It is an object of the present invention to overcome or at least mitigate the disadvantages outlined in the preceding paragraph. In particular, it is an object of the present invention to correct or facilitate the correction of an incorrect hyperlink in a WWW page.

According to a first aspect of the present invention there is provided a method of facilitating the correction of an incorrect hyperlink contained in a file stored on a first network server at an address identified by a first resource locator and which hyperlink points to a second resource locator at a second network server, the method comprising:

copying said file from said first network server to a browser of a client computer via the network;

selecting said hyperlink at the browser so as to transmit a resource locator retrieval request from the browser to said second network server;

receiving said request at the second network server  
5 and responding by returning to the browser a resource locator error message; and

automatically transmitting the resource locator error message from the browser to said first network server.

10

Embodiments of the present invention provide for the automatic transmission of the resource locator error message to the server at which the file containing the incorrect resource locator is maintained. This enables  
15 corrective action to be taken at that server, e.g. the automatic or manual correction of the resource locator.

Preferably, the error message transmitted from the browser to the first network server includes said first  
20 resource locator.

Preferably, the error message transmitted from the browser to the first network server includes said second resource locator.

25

Preferably, the error message returned from the second network server to the browser, and transmitted from the browser to the first network server, contains a corrected resource locator provided by the second  
30 network server.

Preferably, the network to which the servers and the client computer are connected is the Internet, and said resource locators are Universal Resource Locators  
35 (URLs). More preferably, said file containing the incorrect hyperlink is an HTML file and forms part of the information network known as the World Wide Web. In

this case, said browser is a Web browser.  
Alternatively, the file may have some other format  
and/or the network may function according to some other  
non-Internet protocol.

5

The first network server may, upon notification of an  
incorrect URL/hyperlink from a client's browser,  
automatically transmit a URL download request to the  
incorrect URL. In response to this request, the second  
10 network server will again return a corrected URL to the  
first network server. In this way, confirmation of the  
original browser notification may be achieved.

According to a second aspect of the present invention  
15 there is provided apparatus for facilitating the  
correction of an incorrect hyperlink contained in an  
electronic file, the apparatus comprising;

a first network server having a memory for storing  
said file at an address identified by a first resource  
20 locator, said hyperlink pointing to a second resource  
locator at a second network server;

a client computer arranged to copy said file from  
said first network server to a browser of the client  
computer, via the network, and to transmit a resource  
25 locator retrieval request from the browser to said  
second network server upon selection of said hyperlink;  
and

a second network server arranged to receive said  
request and to respond by returning to said browser an  
30 error message,

wherein the client computer is further arranged to  
transmit the error message, from the browser, to said  
first network server.

35 According to a third aspect of the present invention  
there is provided a computer memory encoded with  
executable instructions representing a computer program

for causing a computer system connected to a data network to:

transmit a resource locator retrieval request to a first network server over a data network;

5 download an electronic file from the first network server and which is stored at an address identified by said resource locator, the file containing a hyperlink pointing to a resource locator at a second network server;

10 in response to selection of the hyperlink, transmit a resource locator retrieval request to said second network server;

in the event that the second mentioned resource locator is incorrect, to receive from the second network server an error message; and

15 transmit the error message to said first network server.

#### Brief Description of the Drawings

20 For a better understanding of the present invention and in order to show how the same may be carried into effect reference will now be made by way of example to the accompanying drawings, in which:

25 Figure 1 illustrates schematically a portion of the Internet; and

Figure 2 is a flow diagram illustrating a method of operation of the Internet portion of Figure 1.

#### 30 Detailed Description of Certain Embodiments

There is illustrated in Figure 1 a portion of the Internet which includes a "public" network 1 comprising a large number of interconnected routers (not shown in the Figure). A client computer 2, e.g. that belonging to a home user, is connected to the public network 1 via

a PSTN telephone network 3 and an Internet Access Server 4. Also connected to the public network 1 via respective Internet Access Servers 5,6 are a pair of network servers 7,8. It will be appreciated that the client computer 2 and the networks servers 7,8 are in practice supplemented by a great number of similar computers. Furthermore, the precise details of the connectivity of these computers to the public network 1 may vary greatly, e.g. in many cases computers will be connected to the public network 1 via private intranets.

In order to access the information network known as the World Wide Web (WWW) which is available over the Internet, the client computer 2 is provided with a so-called web browser. This is a software application running on the computer 2; current examples include Netscape Navigator™ and Microsoft Explorer™. The WWW relies upon a document creation language known as Hyper Text Mark-up Language (HTML), and web browsers are designed to interpret documents written in this language for display at the client computer 2. HTML provides for the incorporation of hyperlinks into WWW documents as has already been described above.

Consider now a situation where the web browser at the client computer 2 sends a specific URL resource retrieval request to the public network 1 via the PSTN 3 and the associated IAS 4, where the URL is an address located at a first of the network servers 7 (in this context, the network servers 7,8 may be referred to as "web servers"). This request is routed to the first server 7, which recognises the request and responds by returning the page (referred to below as the "source" page) located at the URL to the public network 1 which in turn routes the page to the client computer 2 from which the request originated. The received web page is

then displayed at the client computer 2 by the web browser.

Normally, the web page returned to the client computer's browser will contain one or more hyperlinks. Now assume that one of these hyperlinks contains an out of date URL, which URL points to a location on the second network server 8 which is no longer valid, i.e. because the web page previously maintained at that location has been moved to a new location (also at the second server 8). In the event that the user selects the incorrect hyperlink by clicking on the link, the browser transmits a URL resource retrieval request to the second network server 8 over the Internet. The second server 8 receives the request, and checks to see whether or not the associated URL is valid. If the answer is yes, the server retrieves the requested page, and returns it to the web browser at the client computer 2. However, if the requested URL does not exist, then the server 8 proceeds as follows.

Firstly, the server 8 seeks to determine if the requested page has been moved to a new URL. For this purpose, the server may maintain a look-up table mapping old URLs to new URLs. If a new URL is identified, then the server 8 returns the page located at the new URL to the client computer's web browser, where the page is displayed. Secondly, the server 8 returns a "correction" message to the client computer's web browser notifying the browser that the requested URL is out of date, and providing the new URL. In the event that the second network server 8 is unable to identify a new URL for an out of date URL, a message may nonetheless be sent to the client computer's browser indicating that the requested URL is unavailable.

The browser responds to the correction message by automatically relaying the message to the first network server 7 and from which the web page having the incorrect URL originated. The browser appends to the  
5 correction message an identification of the incorrect URL. This process may occur without the involvement of the user of the web browser.

The first network server 7 responds to receipt of the  
10 correction message by automatically transmitting a resource retrieval request to the incorrect URL. The second server 8 will respond to receipt of this request as has already been described above, i.e. by returning the page located at the new URL, together with a  
15 correction message containing the new URL (if indeed a new URL is available). The first network server 7 takes this new message as confirmation of the correction message returned from the client computer 1, and thereafter stores the message in a data file associated  
20 with the source page.

Subsequent resource retrieval requests made to the first network server 7 for the source page, result in the downloading of the data file together with the source  
25 page itself. The client computer's browser uses the data file to automatically redirect resource retrieval requests to the corrected URL (or terminate the request if no corrected URL is available). The data file also provides the system administrator responsible for the  
30 first network server 7 with information for correcting or updating the source page's HTML file. For this purpose, the administrator may be automatically notified (e.g. by e-mail) of changes to a data file.

35 Figure 2 is a flow diagram illustrating further the method of operation of the embodiment described above.

It will be appreciated by the person of skill in the art that various modifications may be made to the above described embodiment without departing from the scope of the present invention. For example, in cases where the source page is stored at a server which provides an Internet search engine capability, a correction message may be used by the server to delete out of date URLs from the search directory. It will also be appreciated that, in cases where a web page has been relocated to a new server, a corrected URL sent by a server to a browser may point to a location on that new server.

Claims

1. A method of facilitating the correction of an incorrect hyperlink contained in a file stored on a first network server at an address identified by a first resource locator and which hyperlink points to a second resource locator at a second network server, the method comprising:
- 5 copying said file from said first network server to a browser of a client computer via the network;
- 10 selecting said hyperlink at the browser so as to transmit a resource locator retrieval request from the browser to said second network server;
- receiving said request at the second network server and responding by returning to the browser a resource locator error message; and
- 15 automatically transmitting the resource locator error message from the browser to said first network server.
- 20
2. A method according to claim 1, wherein the error message transmitted from the browser to the first network server includes said first resource locator.
- 25 3. A method according to claim 1 or 2, wherein the error message transmitted from the browser to the first network server includes said second resource locator.
- 30 4. A method according to any one of the preceding claims, wherein the error message returned from the second network server to the browser, and transmitted from the browser to the first network server, contains a corrected resource locator provided by the second network server.

5. A method according to any one of the preceding claims, wherein the network to which the servers and the client computer are connected is the Internet, and said resource locators are Universal Resource Locators (URLs).

6. A method according to claim any one of the preceding claims, wherein the file containing the incorrect hyperlink is an HTML file.

7. A method according to claim 6, wherein said browser is a Web browser.

8. A method according to any one of the preceding claims, wherein the first network server, upon notification of an incorrect hyperlink from a client's browser, automatically transmits a resource locator download request to the incorrect resource locator.

9. Apparatus for facilitating the correction of an incorrect hyperlink contained in an electronic file, the apparatus comprising;

a first network server having a memory for storing said file at an address identified by a first resource locator, said hyperlink pointing to a second resource locator at a second network server;

a client computer arranged to copy said file from said first network server to a browser of the client computer, via the network, and to transmit a resource locator retrieval request from the browser to said second network server upon selection of said hyperlink; and

a second network server arranged to receive said request and to respond by returning to said browser an error message,

wherein the client computer is further arranged to transmit the error message, from the browser, to said first network server.

- 5 10. A computer memory encoded with executable instructions representing a computer program for causing a computer system connected to a data network to:
- transmit a resource locator retrieval request to a first network server over a data network;
- 10 download an electronic file from the first network server and which is stored at an address identified by said resource locator, the file containing a hyperlink pointing to a resource locator at a second network server;
- 15 in response to selection of the hyperlink, transmit a resource locator retrieval request to said second network server;
- in the event that the second mentioned resource locator is incorrect, to receive from the second network
- 20 server an error message; and
- transmit the error message to said first network server.

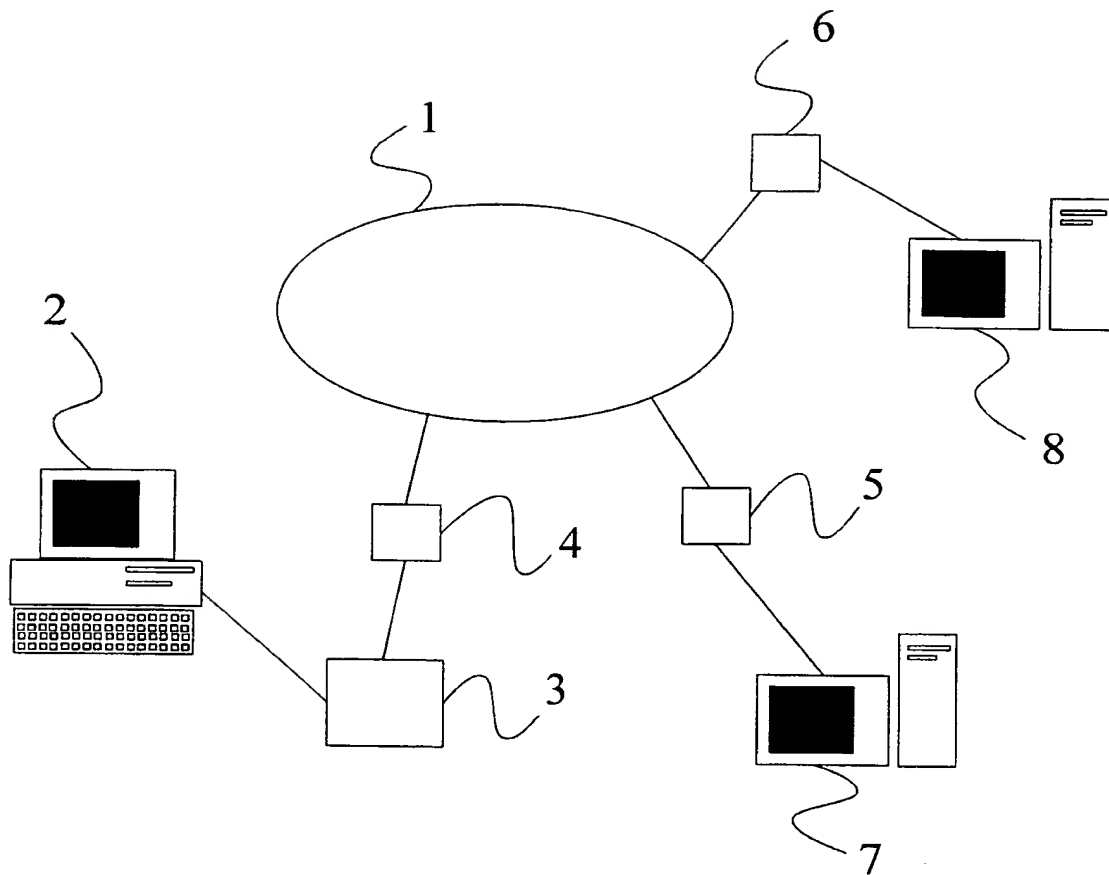


Figure 1

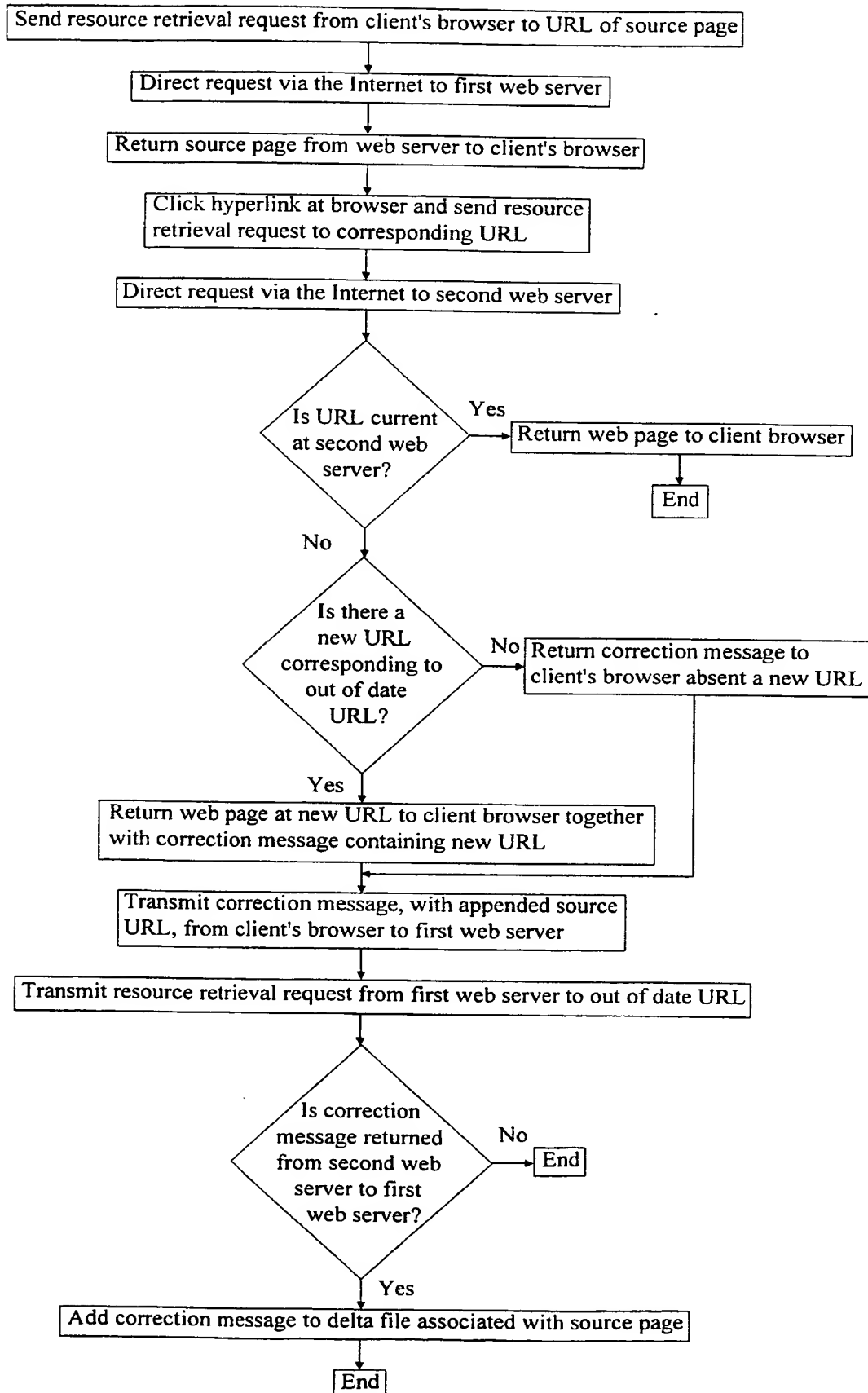


Figure 2

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

15

|                                                                                           |                                                                                                                               |                                              |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Applicant's or agent's file reference<br>8M20PC                                           | <b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |                                              |
| International application No.<br>PCT/FI00/00074                                           | International filing date (day/month/year)<br>02/02/2000                                                                      | Priority date (day/month/year)<br>02/02/1999 |
| International Patent Classification (IPC) or national classification and IPC<br>G06F17/30 |                                                                                                                               |                                              |
| Applicant<br>TELEFONAKTIEBOLAGET LM ERICSSON (publ) et al.                                |                                                                                                                               |                                              |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

|                                                                                                                                                                                                                                                                                     |                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date of submission of the demand<br>30/08/2000                                                                                                                                                                                                                                      | Date of completion of this report<br>18.10.2000                                                                                                             |
| Name and mailing address of the international preliminary examining authority:<br> European Patent Office<br>D-80298 Munich<br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465 | Authorized officer<br>Lacroix, P<br>Telephone No. +49 89 2399 2707<br> |

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/FI00/00074

## I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

### Description, pages:

1-9 as originally filed

### Claims, No.:

1-10 as originally filed

### Drawings, sheets:

1-2 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/FI00/00074

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

|                               |      |        |      |
|-------------------------------|------|--------|------|
| Novelty (N)                   | Yes: | Claims | 1-10 |
|                               | No:  | Claims |      |
| Inventive step (IS)           | Yes: | Claims | 1-10 |
|                               | No:  | Claims |      |
| Industrial applicability (IA) | Yes: | Claims | 1-10 |
|                               | No:  | Claims |      |

### 2. Citations and explanations

**see separate sheet**

## VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

- 1). Reference is made to the following document:

D1: DATABASE WPI Section EI, Week 199910 Derwent Publications Ltd., London, GB; Class T01, AN 1999-110838 XP002901058 & JP 10 333966 A (NEC SOFTWARE CHUBU LTD), 18 December 1998 (1998-12-18)

- 2). The present invention is directed to a method and apparatus for updating URLs stored in web pages of web servers.

**Prior art:**

Document D1 discloses an updating method for Internet WWW-servers. When an URL of a linked page is changed, a hyperlink control machine searches the new URL of the linked page in a hyperlink database and informs the server of the fault URL to correct the linked page.

**Problem:**

The linked page of the system of the prior art is monitored by a linked hyperlink control machine. This monitoring represents an additional burden to the current work of the server.

**Solution:**

The present invention provides a method wherein a wrong URL is only updated when it is addressed. In such a case, the server responds by returning an URL error message. This error message is then returned to the source of the URL which is not longer valid. A correction may then be effectuated if the error message contains the corrected URL provided by the network server.

- 3). The dependent claims are directed to specific embodiments of the invention according to claims 1, 9 and 10. The dependent claims thus meet the requirements of novelty, inventive step and industrial application.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/FI00/00074

**Re Item VII**

**Certain defects in the international application**

- 1). Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
- 2). The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate since the steps until that of returning an error message are obviously part of the prior art.
- 3). The features of the of claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

**Re Item VIII**

**Certain observations on the international application**

- 1). The independent claims are unclear since although being directed to a method for effectuating the correction of an incorrect hyperlink they do not provide all the means necessary for effectively carrying out a correction. For doing that, it is necessary that the error message returned from the second server contains the corrected URL. This feature is currently defined in claim 4.  
Since the independent claims do not contain this feature they do not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.
- 2). Claim 10 is unclear as although directed to a memory, it does not defined any feature relative to the memory as such but is characterised by the data or program recorded therein. This is merely presentation of information (Cf. PCT Gazette - Section IV-2.4 (e)).

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

**To:**

**BORENIUS & CO OY AB**  
Kansakoulukuja 3  
FI-00100 Helsinki  
FINLANDE

PCT

**NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)**

Date of mailing  
(day/month/year) 18.10.2000

**Applicant's or agent's file reference**  
**8M20PC**

## IMPORTANT NOTIFICATION

International application No.  
PCT/FI00/00074

International filing date (day/month/year)  
02/02/2000

Priority date (day/month/year)  
02/02/1999

**Applicant**  
**TELEFONAKTIEBOLAGET LM ERICSSON (publ) et al.**

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer

Schall, H

**Tel. +49 89 2399-2647**




# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |                                                                                   |                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Applicant's or agent's file reference<br><b>8M20PC</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                 | <b>FOR FURTHER ACTION</b>                                                         | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |
| International application No.<br><b>PCT/FI00/00074</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | International filing date (day/month/year)<br><b>02/02/2000</b> | Priority date (day/month/year)<br><b>02/02/1999</b>                               |                                                                                                     |
| International Patent Classification (IPC) or national classification and IPC<br><b>G06F17/30</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                 |                                                                                   |                                                                                                     |
| Applicant<br><b>TELEFONAKTIEBOLAGET LM ERICSSON (publ) et al.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                 |                                                                                   |                                                                                                     |
| <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>                                                                                                                                                                                                                                          |                                                                 |                                                                                   |                                                                                                     |
| <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII <input checked="" type="checkbox"/> Certain observations on the international application</li> </ul> |                                                                 |                                                                                   |                                                                                                     |
| Date of submission of the demand<br><b>30/08/2000</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                 | Date of completion of this report<br><b>18.10.2000</b>                            |                                                                                                     |
| Name and mailing address of the international preliminary examining authority:<br> <b>European Patent Office</b><br><b>D-80298 Munich</b><br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                 | Authorized officer<br><br><b>Lacroix, P</b><br><br>Telephone No. +49 89 2399 2707 |                                                                                                     |



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/FI00/00074

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-9 as originally filed

**Claims, No.:**

1-10 as originally filed

**Drawings, sheets:**

1-2 as originally filed

**2. The amendments have resulted in the cancellation of:**

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

**4. Additional observations, if necessary:**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/FI00/00074

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

|                               |      |        |      |
|-------------------------------|------|--------|------|
| Novelty (N)                   | Yes: | Claims | 1-10 |
|                               | No:  | Claims |      |
| Inventive step (IS)           | Yes: | Claims | 1-10 |
|                               | No:  | Claims |      |
| Industrial applicability (IA) | Yes: | Claims | 1-10 |
|                               | No:  | Claims |      |

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

- 1). Reference is made to the following document:

D1: DATABASE WPI Section EI, Week 199910 Derwent Publications Ltd., London, GB; Class T01, AN 1999-110838 XP002901058 & JP 10 333966 A (NEC SOFTWARE CHUBU LTD), 18 December 1998 (1998-12-18)

- 2). The present invention is directed to a method and apparatus for updating URLs stored in web pages of web servers.

**Prior art:**

Document D1 discloses an updating method for Internet WWW-servers. When an URL of a linked page is changed, a hyperlink control machine searches the new URL of the linked page in a hyperlink database and informs the server of the fault URL to correct the linked page.

**Problem:**

The linked page of the system of the prior art is monitored by a linked hyperlink control machine. This monitoring represents an additional burden to the current work of the server.

**Solution:**

The present invention provides a method wherein a wrong URL is only updated when it is addressed. In such a case, the server responds by returning an URL error message. This error message is then returned to the source of the URL which is not longer valid. A correction may then be effectuated if the error message contains the corrected URL provided by the network server.

- 3). The dependent claims are directed to specific embodiments of the invention according to claims 1, 9 and 10. The dependent claims thus meet the requirements of novelty, inventive step and industrial application.

**Re Item VII**

**Certain defects in the international application**

- 1). Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
- 2). The independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate since the steps until that of returning an error message are obviously part of the prior art.
- 3). The features of the of claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

**Re Item VIII**

**Certain observations on the international application**

- 1). The independent claims are unclear since although being directed to a method for effectuating the correction of an incorrect hyperlink they do not provide all the means necessary for effectively carrying out a correction. For doing that, it is necessary that the error message returned from the second server contains the corrected URL. This feature is currently defined in claim 4.  
Since the independent claims do not contain this feature they do not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention.
- 2). Claim 10 is unclear as although directed to a memory, it does not defined any feature relative to the memory as such but is characterised by the data or program recorded therein. This is merely presentation of information (Cf. PCT Gazette - Section IV-2.4 (e)).

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

## PCT

### NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

|                                                                                       |
|---------------------------------------------------------------------------------------|
| <b>To:</b><br>BORENIUS & CO OY AB<br>Kansakoulukuja 3<br>FI-00100 Helsinki<br>FINLAND |
|---------------------------------------------------------------------------------------|

|                                     |            |
|-------------------------------------|------------|
| Date of mailing<br>(day/month/year) | 26/07/2000 |
|-------------------------------------|------------|

|                                                 |                                                        |
|-------------------------------------------------|--------------------------------------------------------|
| Applicant's or agent's file reference<br>8M20PC | <b>FOR FURTHER ACTION</b> See paragraphs 1 and 4 below |
|-------------------------------------------------|--------------------------------------------------------|

|                                                    |                                               |            |
|----------------------------------------------------|-----------------------------------------------|------------|
| International application No.<br>PCT/ FI 00/ 00074 | International filing date<br>(day/month/year) | 02/02/2000 |
|----------------------------------------------------|-----------------------------------------------|------------|

|                                                            |
|------------------------------------------------------------|
| Applicant<br>TELEFONAKTIEBOLAGET LM ERICSSON (publ) et al. |
|------------------------------------------------------------|

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO  
 34, chemin des Colombettes  
 1211 Geneva 20, Switzerland  
 Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.


☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

|                                                                                                                                                                                                                                                                                                                                                 |                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Name and mailing address of the International Searching Authority<br> European Patent Office, P.B. 5818 Patentlaan 2<br>NL-2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016 | Authorized officer<br>Marja Brouwers |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|

## NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

#### What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

#### When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

#### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

#### How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

#### What documents must/may accompany the amendments?

##### Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

## NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:  
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:  
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:  
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or  
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:  
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

### "Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

### Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/PEA/401).

### Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

|                                                                   |                                                                                                                                                         |                                                                |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Applicant's or agent's file reference<br><b>8M20PC</b>            | <b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. |                                                                |
| International application No.<br><b>PCT/FI 00/ 00074</b>          | International filing date (day/month/year)<br><b>02/02/2000</b>                                                                                         | (Earliest) Priority Date (day/month/year)<br><b>02/02/1999</b> |
| Applicant<br><b>TELEFONAKTIEBOLAGET LM ERICSSON (publ) et al.</b> |                                                                                                                                                         |                                                                |

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 2 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

## 4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

## 5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

## 6. The figure of the drawings to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

1

None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 00/00074

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G06F 17/30

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                         | Relevant to claim No. |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| A         | JP 10333966 A (NEC SOFTWARE CHUBU LTD) 1998-12-18<br>(abstract) World Patents Index (online). London,<br>U.K.: Derwent Publications, Ltd. (retrieved on<br>2000-05-17). Retrieved from: EPO WPI Database.<br>DW199910, Accession No. 1999-110838<br><br>-- | 1-10                  |
| A         | US 5751956 A (S.T. KIRSCH), 12 May 1998<br>(12.05.98), the whole document<br><br>-----                                                                                                                                                                     | 1-10                  |

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

18 May 2000

Date of mailing of the international search report

26. 07. 2000

Name and mailing address of the International Searching Authority  
European Patent Office P.B. 8018 Patentlaan 2  
NL-2280 HV Rijswijk  
Tel(+31-70)340-2040, Tx 31 651 epo nl,  
Fax(+31-70)340-3016  
E: epo@epo.nl

Authorized officer

Oskar Pihlgren / MR  
Telephone No.

## SA 270479

International application No.

02/12/99

PCT/FI 00/00074

Form PCT/ISA/210 (patent family annex) (July 1992)

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below:  
IPEA/ EP

# PCT

## DEMAND

### CHAPTER II

under Article 31 of the Patent Cooperation Treaty:  
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For International Preliminary Examining Authority use only

|                                                                                                                                                                                                                                                 |                                                                           |                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Identification of IPEA                                                                                                                                                                                                                          |                                                                           | Date of receipt of DEMAND                                                |
| <b>Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION</b>                                                                                                                                                                                |                                                                           | Applicant's or agent's file reference<br>8M20PC                          |
| International application No.<br>PCT/FI00/00074                                                                                                                                                                                                 | International filing date (day/month/year)<br>02 February 2000 (02.02.00) | (Earliest) Priority date (day/month/year)<br>02 February 1999 (02.02.99) |
| Title of invention<br>ADDRESSING IN THE INTERNET                                                                                                                                                                                                |                                                                           |                                                                          |
| <b>Box No. II APPLICANT(S)</b>                                                                                                                                                                                                                  |                                                                           |                                                                          |
| Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)<br><br>TELEFONAKTIEBOLAGET L M ERICSSON (publ)<br>S-126 25 Stockholm<br>Sweden |                                                                           | Telephone No.:<br><br>Facsimile No.:<br><br>Teleprinter No.:             |
| State (that is, country) of nationality:<br>SE                                                                                                                                                                                                  | State (that is, country) of residence:<br>SE                              |                                                                          |
| Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)<br><br>LAIHO, Keijo<br>Metsätörpantie 2 G 20<br>FIN-02430 Masala<br>Finland    |                                                                           |                                                                          |
| State (that is, country) of nationality:<br>FI                                                                                                                                                                                                  | State (that is, country) of residence:<br>FI                              |                                                                          |
| Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)<br><br><br><br><br><br><br><br><br><br>                                        |                                                                           |                                                                          |
| State (that is, country) of nationality:                                                                                                                                                                                                        | State (that is, country) of residence:                                    |                                                                          |
| <input type="checkbox"/> Further applicants are indicated on a continuation sheet.                                                                                                                                                              |                                                                           |                                                                          |

**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**The following person is ☒ agent ☐ common representativeand ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.Name and address: (Family name followed by given name; for a legal entity, full official designation.  
The address must include postal code and name of country.)BORENIUS & CO OY AB  
Kansakoulukuja 3  
FIN-00100 Helsinki  
Finland

Telephone No.:

+358-9-6866840

Facsimile No.:

+358-9-68668444

Teleprinter No.:

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:\***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filedthe description ☒ as originally filed☐ as amended under Article 34the claims ☒ as originally filed☐ as amended under Article 19 (together with any accompanying statement)☐ as amended under Article 34the drawings ☒ as originally filed☐ as amended under Article 342. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). (This check-box may be marked only where the time limit under Article 19 has not yet expired.)

\* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

Language for the purposes of international preliminary examination: English☒ which is the language in which the international application was filed.☐ which is the language of a translation furnished for the purposes of international search.☐ which is the language of publication of the international application.☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.**Box No. V ELECTION OF STATES**

The applicant hereby elects all eligible States (that is, all States which have been designated and which are bound by Chapter II of the PCT)

excluding the following States which the applicant wishes not to elect:

## Box No. VI CHECK LIST

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- |                                                                          |   |        |
|--------------------------------------------------------------------------|---|--------|
| 1. translation of international application                              | : | sheets |
| 2. amendments under Article 34                                           | : | sheets |
| 3. copy (or, where required, translation) of amendments under Article 19 | : | sheets |
| 4. copy (or, where required, translation) of statement under Article 19  | : | sheets |
| 5. letter                                                                | : | sheets |
| 6. other (specify)                                                       | : | sheets |

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received not received

|                          |                          |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |

The demand is also accompanied by the item(s) marked below:

- |                                                                                          |                                                                                                     |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> fee calculation sheet                             | 4. <input type="checkbox"/> statement explaining lack of signature                                  |
| 2. <input type="checkbox"/> separate signed power of attorney                            | 5. <input type="checkbox"/> nucleotide and or amino acid sequence listing in computer readable form |
| 3. <input type="checkbox"/> copy of general power of attorney; reference number, if any: | 6. <input type="checkbox"/> other (specify):                                                        |

## Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).

BORENIUS & CO OY AB

*Gunnel Lönnqvist*

Gunnel Lönnqvist  
European Patent Attorney (0081760)

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1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.

☐ The applicant has been informed accordingly.

4. ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.

5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.

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Demand received from IPEA on: